B4512 Control Panels

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BOSCH
Invented for life

- Supports a combination of up to 28 hardwired or wireless points for installation flexibility and 2 areas with perimeter and interior control
- On-board Ethernet port for Conettix IP alarm communication and remote programming, compatible with modern IP networks including IPv6/ IPv4, Auto-IP and Universal Plug and Play
- Installer-friendly features including on-board USB for easy on-site RPS programming, plus plug-in PSTN and Cellular communication modules for simple installation and future proof upgrades
- Remote Security Control app allows system operation from iPhone, iPAD or iPOD Touch
- Programmable keypad shortcuts, situation sensitive on-screen help, and automatic language selection by the user makes system operation simple and easy

The B4512 Control Panel integrates intrusion and residential fire, providing one simple user interface for both systems. The B4512 provides up to 28 individually identified points that can be split into 2 areas. The control panel includes a built-in Ethernet port for IP network communications, and is compatible with modules that send events to selected public switched telephone network (PSTN), IP network, or cellular network destinations through four programmable route groups.
With the B4512, you can monitor doors, windows, inventory and showrooms as well as security devices. Each user can have a personalized passcode to turn the system on and off or silence alarms. Users can also have a wireless keyfob to turn on the system from a parking area or to turn off the system when carrying items.

Use programmable authority levels with restricted privileges to provide service, security, and cleaning personnel with full or limited access. Use the three programmable outputs (expandable up to 27) to turn on lights or open and lock doors. You can:

- Turn on the system to secure the stock room while you conduct daily business.
- Perform tests to ensure your system is working properly.
- Set your system to alarm immediately if a door opens.
- Activate the Watch feature so a tone sounds whenever a customer enters.
- Set a schedule for your system to automatically turn on at closing time.
- Use wireless security options to customize your system.

Central monitoring stations provide 24-hour system monitoring with access to vital services. Professional security personnel can test the system, monitor system activity, and alert the police, fire department, or other emergency response teams if necessary.

Functions

Programmable outputs
- 500 mA not to exceed 1.3 A total current for a burglary system, or not to exceed 1.0 A total current for household fire applications
- 800 mA auxiliary power at 12 VDC
- Four alarm-output patterns
- Programmable bell test
- Three programmable outputs; high current using a relay, and two trigger outputs
- Output A contact rating is 3 A

System response
- High-performance micro-controller provides industry leading system response
- 20 custom point indexes
- Selectable point response time
- Cross point capability
- Fire alarm verification
- Dangerous gas indicator includes carbon monoxide (NFPA 720)
- Watch mode
- Scheduled events (SKEDs) perform several functions, such as turn on (arm) the system, turn off (disarm) the system, bypass and unbypass points, and control relays

User interface
- Supervision of up to 8 keypads
- Custom keypad text is fully programmable through RPS
- Full function command menu including custom functions
- Authority by area and 32 character name for each user
- 14 custom authority levels control user's authority to change, add, or delete passcodes to disarm or bypass points; and to start system tests

Area configurations
Area programming offers a wide selection of different system configurations. The control panel assigns an account number to each area to define annunciation, control, and reporting functions. Make area arming conditional on other areas (master or associate), if desired. You can configure any area for perimeter and interior arming, not requiring a separate area for this function.

Custom functions
For added convenience, the installer can program custom functions that allow customers to complete complex tasks with fewer keystrokes. For example, a custom function can bypass a group of points and arm the system, allowing the user to perform this function with one easy command. Installers can use custom functions to control a particular room. Customers activate custom functions with a keypad, with a key fob, by faulting a point, or automatically as a scheduled event (SKED).

Passcode security
- Two-Man Rule - Requires two people with two unique passcodes to be present at the time of opening.
- Early Ambush - Allows users to verify that the facility is safe by requiring two passcode entries at the same keypad, sending a duress event if the user does not enter the passcode a second time after inspecting the premises.

Easy exit control
The control panel changes from one On (armed) state to another On (armed) state without turning of (disarming) the system. For example, if you change the state from Part On (Perimeter Arm) to All On (Master Arm), the control panel complies and reports the change. Easy Exit Control reduces the number of keystrokes, simplifying system operation.

Programmable passcode-controlled menu list
Passcode-controlled shortcuts provide users only with the options and information pertinent to them, simplifying system operation.

Flexible control
The system provides the flexibility to choose added convenience or high security. For example, you can restrict to a keypad's immediate local area turning on (arming) and turning off (disarming) the system with a passcode, even if the user has access to other areas. This is particularly useful for high security areas, where a user may have access to the area, but would prefer to only turn off (disarm) the area individually rather than with the rest of the system. Another option is to program the system to turn off all areas the user can access from any keypad.

Invisible walk test
A menu item allows the user to test invisible 24-hour points within the scope of the keypad without sending a report to the central station.

System users
The system supports up to 32 users, each can have a passcode and a wireless key fob. User passcodes contain three to six digits. You can assign passcodes to one of 14 customized authority levels in each area and can be restricted to operate only during certain times.

Communication formats
The control panel prioritizes and sends reports to four route groups. Network communication uses the Modem4 communication format, whereas phone communication uses Contact ID or Modem4 communications formats. Each group has a programmable primary and backup destination.
The control panel provides flexible communications for most central stations with reporting capabilities such as:
- Individual point numbers
- Opening or closing reports by user and area number
- Remote programming attempts
- Diagnostic reports

IP communication
The control panel uses the on-board Ethernet connector, B440 Conettix Plug-in Cellular Communicator, or B426 Conettix Ethernet Communication Module to communicate with Conettix D6600 and Conettix D6100IPv6 Communications Receiver/Gateways. Using Conettix IP communication offers a secure path that includes anti-replay/anti-substitution features and provides enhanced security with encryption*. You can use the Ethernet connection for remote programming.
The control panel supports Domain Name System (DNS) for both remote programming and central station communication. DNS provides ease of use, eliminating the need to use static IP addresses as your reporting destination, and accommodates a simple solution for central station disaster recovery. IP Setup is available via the keypad Installer menu and the remote programming software, eliminating the need to use complicated internet programming tools such as ARP and Telnet. The control panel supports both IPv6 and IPv4 networks.
For more information on the enhanced communications capabilities, refer to *RPS Help* or the *Control Panels (B5512/B4512) Program Entry Guide* (P/N: F01U265465).

Communication paths
The control panel accommodates up to four separate phone and four separate network paths to the central station receiver. When resetting alarms or turning a system on and off, the user is identified by name and number.

Personal notification
The control panel can send and receive SMS messages for personal notification or system configuration when using a cellular plug-in communicator. You can configure up to 16 cellular phone numbers to receive SMS messages from the control panel.

Firmware updates
Remote firmware updates through Remote Programming Software (RPS) using the RPS Firmware Update Wizard through the IP connection (on-board Ethernet connection, B426 Conettix Ethernet Communication Module, or B440 Conettix Plug-in Cellular Communicator), provides for easy feature enhancements without replacing ROM chips.

A wide variety of input options
Each point:
- Accommodates normally-open (NO) and normally-closed (NC) devices with end-of-line (EOL) resistor supervision.
- Accepts programming for fire, gas, fire supervisory, or intrusion applications.
- Supports hard-wired or wireless devices.

Security and fire detection
The control panel provides eight on-board points, and up to 20 additional off-board points (depending on model and expansion interfaces). You can program individual points to monitor some types of burglar alarms, fire alarms, and supervision devices.

Event log
The event log stores up to 127 local and transmitted events. The event log includes time, date, event, area, point, and user number. View the event log from a keypad or use RPS to remotely retrieve event information. RPS operators can retrieve events periodically using one phone call, rather than receiving several calls each day. When the event log reaches a programmed threshold of stored events, it can send an optional report to a receiver.

Scheduled events (SKEDs)
The internal clock and calendar start individually scheduled events (SKEDs). SKEDs perform functions such as turn on or off, relay control, or point bypassing.
The control panel offers:
- Five scheduled events with up to 25 different functions
- Two opening windows and two closing windows
- Two user windows
- Day-of-week, date-of-month, or holiday only schedules
- One holiday schedule of 366 days (leap year)

Programming
Installers can perform limited programming on-site with a keypad (critical parameters; such as account IDs, central station and RPS IP addresses and phone numbers, reporting formats, and more).They can also do full programming on-site or remotely (attended or unattended) with RPS. A programmable system passcode prevents unauthorized remote programming.

Diagnostics
Keypads and RPS offer diagnostic help for monitoring and troubleshooting. The Diagnostic features allow you to view the status of the on-board Ethernet connection, plug-in communicators, and SDI2 devices, including inputs, outputs, and RF. The features provide the status of the control panel and its connected devices, such as firmware version, power, and missing conditions. View the status of each area. Diagnostics also include connection data for connected wireless and Ethernet devices.

Certifications and approvals

Region	
US	UL 365 - Police Station Connected Burglar Alarm Units and Systems
	UL 609 - Local Burglar Alarm Units and Systems
	UL 636 - Holdup Alarm Units and Systems
	UL 985 - Household Fire Warning System Units

	UL 1023 - Household Burglar Alarm System Units
	UL 1076 - Proprietary Burglar Alarm Units and Systems
	UL 1610 -Central Station Burglar Alarm Units
	FCC Part 15 Class B
Canada	CAN/ULC S303 - Local Burglar Alarm Units and Systems
	CAN/ULC S304 - Signal Receiving Centre and Premise Alarm Control Units
	ULC-ORD C1023 - Household Burglar Alarm System Units
	ULC-ORD C1076 - Proprietary Burglar Alarm Units and Systems

Region	Certification	
USA	CSFM	7167-1615:0247

Installation/configuration notes

Compatible products

Keypads

B920 Two-line Alphanumeric Keypad (SDI2)
B930 ATM Style Alphanumeric Keypad (SDI2)

Transformers

CX4010 Plug-in Transformer (18 VAC 22 VA 60 Hz)

ICP-TR1822-CAN Plug-in Transformer (110 VAC primary, 18 VAC 22 VA secondary)

Enclosures

B10 Medium Control Panel Enclosure

B11 Small Control Panel Enclosure

B12 Mounting Plate for D8103 Enclosure

D2203 Enclosure

D8103 Universal Enclosure

D8108A Attack Resistant Enclosure

D8109 Fire Enclosure

Detectors

D285/TH Photoelectric Smoke Detector Heads

FCC-380 Carbon Monoxide Detector

Bosch conventional detectors, including Professional Series, Blue Line Gen2, Blue Line, Classic Line, Commercial Line, and Ceiling Mount motion detectors, as well as glass break, seismic, request-to-exit, photoelectric, heat, and smoke detectors.

Modules

B208 Octo-input Module

B308 Octo-output Module

B426 Conettix Ethernet Communication Module (NEW)

B430 Plug-in Communicator, Telephone

B440 Conettix Plug-in Communicator, Cellular (3G)

B520 Auxiliary Power Supply Module

RADION receiver SD

B820 SDI2 Inovonics Interface Module

D113 Battery Lead Supervision Module

D125B Dual Class B Initiating Module

D127 Reversing Relay Module

D129 Class A Initiating Module

D132A Smoke Detector Reversing Relay Module

D134 Dual Relay Module

D185 Reverse Polarity Signaling Module

D192G Notification Appliance Circuit Module

Programming

RPS or RPS-LITE Remote Programming Software v5.15 or higher

Conettix receivers

(Managed and configured with Conettix D6200 Programming/ Administration Software v2.00)

Conettix D6600 Communications Receiver/Gateway (with only D6641 line cards installed) with CPU version 01.10.00

Conettix D6100IPv6 Communications Receiver/Gateway with CPU version 61.10.00
Conettix D6100i Communications Receiver/Gateway with CPU version 61.10.00

RADION wireless from Bosch

B810 receiver
RFBT-A bill trap

RFDL-11-A TriTech motion detector

RFDW-RM-A recessed mount door/window contact

RFDW-SM-A surface mount door/window contact

RFGB-A glass break detector

RFIN-A inertia detector

RFKF-A two-button keyfob

RFKF-FB-A four-button keyfob

RFKF-TB-A two-button keyfob

RFPB-SB-A single-button panic

RFPB-TB-A two-button panic

RFRP-A repeater

RFSM-A smoke detector

RFPR-12-A PIR motion detector

RFPR-C12-A PIR curtain motion detector

RFUN-A universal transmitter

Wireless

B820 SDI2 Inovonics Interface Module

ENKIT-SDI2 SDI2 Inovonics Interface and Receiver Kit. Includes B820 and EN4200

EN1210 Universal Transmitter (Single-input)

EN1210EOL Universal Transmitter with EOL Resistor

EN1210W Door-Window Transmitter with Reed Switch

EN1215EOL Universal Transmitter with Wall Tamper, Reed Switch, and EOL Resistor

EN1223D Water-resistant Pendant Transmitter (Double-button)

EN1223S Water-resistant Pendant Transmitter (Single-button)

EN1224-ON Multiple-Condition Pendant Transmitter

EN1233D Necklace Pendant Transmitter (Double-button)

EN1233S Necklace Pendant Transmitter (Single-button)

EN1235D Beltclip Pendant Transmitter (Double-button)

EN1235DF Fixed-location Transmitter (Double-button)

EN1235S Beltclip Pendant Transmitter (Single-button)

EN1235SF Fixed-location Transmitter (Single-button)

EN1247 Glass-break Detector Transmitter

EN1249 Bill Trap Transmitter

EN1242 Smoke Detector Transmitter

EN1260 Wall Mount Motion Detector

EN1261HT High Traffic Motion Detector

EN1262 Motion Detector with Pet Immunity

EM1265 360° Ceiling Mount Motion Detector

EN4200 Serial Receiver

EN5040-T High Power Repeater with Transformer

Parts included

The B4512 includes the following parts:

Quant.	Component
1	B4512 Board
1	Literature pack • UL Installation Instructions • Owner's Manual • Release Notes • SIA Quick Reference Guide
1	Literature CD containing all product literature

The available kits come with the parts indicated in the following table:

	Kits	
Components	-C	-D
B4512 Board	1	1
Literature CD containing all product literature	1	1
CX4010 Plug-in Transformer (18 VAC 22 VA 60 Hz)	1	1
B10 Medium Control Panel Enclosure	1	
B11 Small Control Panel Enclosure		1

Technical specifications

Communications

Ethernet	One on-board Ethernet connector

Environmental considerations

Relative humidity	5% to 93% at +90°F (+32°C), non-condensing
Temperature (operating)	+32°F to +122°F (0°C to +49°C)

Number of...

Areas:	2
Custom functions:	2
Events:	Up to 127
Passcode users:	32, plus 1 Installer passcode
Points:	28 (8 on-board, up to 20 off-board)
Programmable relay outputs:	27 (3 on-board, up to 24 off-board)
RF points:	20
SKEDs:	5

Power Requirements

Current draw (maximum)	Idle 125 mA; Alarm 155 mA
Output (alarm)	1.3 A at 12 VDC
Output (auxiliary, continuous power, and switched auxiliary combined):	800 mA at 12 VDC nominal
Voltage (operating):	12 VDC nominal
Voltage (AC):	CX4010 UL Listed Class 2 Transformer 18 VAC 22 VA 60 HZ

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

Standard Medium Enclosure Package
Order number **B4512-C**

Standard Small Enclosure Package
Order number **B4512-D**

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